

EYEGLASSES CASE

BACKGROUND OF THE INVENTION

5 1. Field of the Invention

This invention relates to an eyeglasses case wherein an upper cover and a lower cover are integrally united, and more specifically, the invention relates to an 10 eyeglasses case wherein a rotating member in which oil is sealed is secured to a contact portion of the upper cover and the lower cover, and the upper cover is slowly rotated upwardly.

15 2. Description of the Related Art

As for a conventional eyeglasses case wherein an upper cover and a lower cover are integrally united, an eyeglasses case having a structure in which the covers 20 can be opened upwardly and downwardly via a hinge portion at a side end is known, as shown in Japanese Utility Model Unexamined Publication No. 2-11431 "an eyeglasses case with a storage space".

The eyeglasses case of this shape is typically used 25 in such a manner that a pair of eyeglasses stored in the

case can be taken out by opening a little an opening mouth provided on an opening side while being held by both hands and then by opening the mouth up to the maximum extent of the opening limit or the mouth can be
5 closed.

However, in the above-stated conventional eyeglasses case, the upper cover of the case has to be opened by using both hands. That is, an eyeglasses case which can be operated by one hand has not been known yet, for
10 example, such a type of an eyeglasses case that, when releasing a button, the upper cover is automatically opened in the upward direction.

Thus, the inventor of the present invention has studied earnestly to solve the related problems and found
15 that an eyeglasses case can be manufactured wherein a rotating member is secured to a contact portion of an upper cover and a lower cover and the upper cover can be rotated automatically using a rotating spindle within the rotating member.

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SUMMARY OF THE INVENTION

A first invention is an eyeglasses case comprising:
an upper cover; a lower cover; a button which is secured
25 to the upper cover; and a rotating member which is secured to a contact portion between the upper cover and

the lower cover, wherein, when pushing the button for release, a spring in the rotating member moves to slowly open the upper cover upwardly.

A second invention is an eyeglasses case according
5 to claim 1, wherein said rotating member comprises a support spindle for supporting the spring and an outer housing for containing the support spindle, the support spindle and the outer housing being integrally united, and wherein oil is sealed in the support spindle.

10 The third invention is an eyeglasses case according to Claim 1, wherein the rotating member comprises a main body case having holes for securement, a rotor or a vane fitted into an inside of the case, oil with which a clearance inside of the case is filled, and a cover body.

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BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view of an eyeglasses case according to the present invention;

20 Fig. 2 is a plan view of an eyeglasses case of Fig. 1;

Fig. 3 is a front view of an eyeglasses case of Fig. 1;

25 Fig. 4 is a partly cross-sectional view for illustrating a cross section A-A' of Fig. 2; and

Fig. 5 is a perspective view for illustrating an embodiment of an eyeglasses case according to the present invention.

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DESCRIPTION OF THE PREFERRED EMBODIMENTS

Fig.1 is a perspective view of the eyeglasses case relating to the present invention. An eyeglasses case 1 of the present invention has a case type shape wherein an upper cover 2 and a lower cover 3 are integrally united and wherein two rotating members 6 are provided on the both end portions of a connecting portion and a button 4 provided on the opposite side for opening the upper cover is secured on a button securing portion 5.

15 In this case, the button of the button securing portion has a structure, wherein an engaging portion which engages the upper cover 2 and the lower cover 3 is released within the structure when the button is pulled outwardly or pushed inwardly by one hand.

20 The upper cover 2 has such a structure that the cover is opened upwardly by the function of the two rotating members 6 provided on the other side end when the above-stated engaging portion is released. However, the cover is not opened upwardly immediately with the release of the above-stated engaging portion. Since the

oil 9 filled within the rotating member 6 provides a slow motion of a spring 8 which is fitted into a supporting spindle 7, and extended or compressed, a mechanism which allows the upper cover to be slowly opened upwardly is obtained as a result.

In this case, the structure within the rotating member 6 is a structure, as shown in Fig. 4, in which an outer cylindrical frame is formed at a lower end portion of the upper cover 2 so that the supporting spindle 7 is fitted into the frame along the inner circumferential wall of the frame. In this case, the supporting spindle 7 is cylindrical in its outer shape and a protrusion is provided on the inner bottom surface to be a spring stopper 11.

On the other hand, a protrusion is also provided in the outer cylindrical frame formed at the lower end portion of the upper cover 2 to be a spring stopper 10. The spring 8 is arranged to be fixed between the two spring stoppers.

Further, a covering member is provided at a side end portion of the above-stated supporting spindle 7, and the oil 9 is sealed in the supporting spindle. When an upper lock member 12 is released from a lower lock member 13 by pushing the push button 4 provided on the eyeglasses case upper cover, the spring 8 which has been in a transformed

state begins to extend outwardly, and at the same time, the upper cover is opened upwardly.

When only with the spring function in this case, the upward opening is immediately achieved which might be 5 dangerous, for example, due to hitting a user on the hand. Therefore, oil is filled in the supporting spindle so that extension or compression of the spring is arbitrarily restricted so as to control the motion of the spring such that the upward opening becomes slow.

10 In an another embodiment of the eyeglasses case, instead of the above-stated rotating member using the spring, a rotating member may comprise a main body case having holes for securement, a rotor or a vane fitted into an inside of the case, oil with which a clearance 15 inside of the case is filled, and a cover body.

Such a rotating member is referred to as a rotary damper or an oscillation damper. In this case, the rotary damper is a damper of a rotating system using a restraining force (a brake force) generated by viscosity 20 resistance of oil. The upper cover is adapted to be able to be opened upwardly by fitting a rotor having a rotating spindle into a cylindrical main body, filling the circumference of the rotor with oil, covering the body with a cap and connecting the upper cover to the 25 above-stated rotating spindle by a lever or a gear as a rotating spindle for the upper cover.

On the other hand, the oscillation damper is a rotating system damper using pressure of oil. The upper cover is adapted to be able to be opened upwardly by securing a plurality of vanes integrally to a rotating spindle in a main body case, filling the clearance between the vanes with silicon oil, covering the body case with a cap and connecting the upper cover to the above-stated rotating spindle by a lever or a gear as a rotating spindle for the upper cover.

The eyeglasses case of the present invention has a structure in which a lever or a gear connected to a rotating spindle can be slowly moved by restricting rotation of a rotary damper or a oscillation damper, or extension or compression of a spring by fill oil in a rotating member, and with the movement, the upper cover can be opened slowly upwardly. Therefore, the user can open the upper cover automatically by releasing the button of the upper cover with one hand.